Amendments to the claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

1. (Previously Presented) A method for monitoring electron charge effect occurring during semiconductor processing, comprising:

providing a substrate, a layer of n-type conductivity having been created in said substrate;

creating a pattern of Local Oxidation of Silicon (LOCOS) regions in said substrate, said pattern of LOCOS being interspersed with exposed regions of said substrate;

etching said exposed regions of said substrate using said pattern of LOCOS regions as a hard mask, creating a pattern of elevated LOCOS regions, creating trenches having inside surfaces in said substrate;

creating a layer of interlayer oxide over said pattern of LOCOS regions and said inside surfaces of said trenches created in said substrate;

depositing a layer of polysilicon over said layer of interlayer oxide;

patterning said layer of polysilicon, said patterned layer of polysilicon comprising at least one contact point over said substrate, completing creation of a electron charge monitoring device having a surface;

providing a semiconductor processing tool, said semiconductor processing tool being designated as being a tool being evaluated for electron charge effect of a process being performed by said tool;

positioning said substrate comprising said electron charge monitoring device inside said processing tool in a location and a position being occupied by a substrate being processed by said tool;

establishing processing conditions of a process as these processing conditions apply for said process and said tool;

exposing said electron charge monitoring device to said established processing conditions for a period of time;

terminating said processing conditions;

removing said electron charge monitoring device from said semiconductor processing tool; and

measuring a voltage required to induce a FN tunneling based current between the at least one contact point of said patterned layer of polysilicon and said substrate.

2. (Previously Presented) The method of claim 1, said creating a pattern of Local Oxidation of Silicon (LOCOS) regions in said substrate comprising the steps of:

depositing a layer of silicon nitride over said substrate;

patterning said layer of silicon nitride, creating a mask of silicon nitride over said substrate, elements of said mask being interspersed with exposed regions of said substrate;

creating layers of Local Oxidation of Silicon (LOCOS) in said exposed regions of said substrate; and

removing said mask of silicon nitride from said substrate.

3. (Previously Presented) The method of claim 1, wherein said layer of interlayer oxide is HTO, dry oxide or wet oxide.

4. (Original) The method of claim 1, said layer of interlayer oxide being created to a thickness between about 80 and 300 Angstrom.

5. (Previously Presented) The method of claim 1, said layer of polysilicon being deposited to a thickness within the range of between 1,500 and 6,000 Angstrom.

6. (Previously Presented) A method for monitoring electron charge effect occurring during semiconductor processing, comprising:

providing a substrate, a layer of n-type conductivity having been created in said substrate;

creating a pattern of Local Oxidation of Silicon (LOCOS) regions in said substrate, said pattern of LOCOS being interspersed with exposed regions of said substrate;

etching said exposed regions of said substrate using said pattern of LOCOS regions as a hard mask, creating a pattern of elevated LOCOS regions, creating trenches having inside surfaces in said substrate;

creating a layer of interlayer oxide over said pattern of LOCOS regions and said inside surfaces of said trenches created in said substrate;

depositing a layer of polysilicon over said layer of interlayer oxide;

patterning said layer of polysilicon, said patterned layer of polysilicon comprising at least one contact point over said substrate, completing creation of a electron charge monitoring device having a surface;

providing a semiconductor processing tool, said semiconductor processing tool being designated as being a tool being evaluated for electron charge effect of a process being performed by said tool;

positioning said substrate comprising said electron charge monitoring device inside said processing tool in a location and a position being occupied by a substrate being processed by said tool;

establishing processing conditions of a process as these processing conditions apply for said process and said tool;

exposing said electron charge monitoring device to said established processing conditions for a period of time;

terminating said processing conditions;

removing said electron charge monitoring device from said semiconductor processing tool; and

measuring a voltage required to induce a FN tunneling based current between the at least one contact point of said patterned layer of polysilicon and said substrate,

said patterned layer of polysilicon comprising a square, said pattern of Local Oxidation of Silicon (LOCOS) regions comprising arrays of LOCOS regions perpendicularly and outwardly extending from each side of said square of said patterned layer of polysilicon.

Claims 7-11. (Cancelled)

12. (Previously Presented) The method of claim 1, said current induced between said layer of polysilicon and said substrate being 0.1 μA.

13. (Previously Presented) A method of creating an electron charge effect monitoring device, comprising:

providing a substrate, a layer of n-type conductivity having been created in said substrate;

creating a pattern of Local Oxidation of Silicon (LOCOS) regions in said substrate, said pattern of LOCOS being interspersed with exposed regions of said substrate;

etching said exposed regions of said substrate using said pattern of LOCOS regions as a hard mask, creating a pattern of elevated LOCOS regions, creating trenches having inside surfaces in said substrate;

creating a layer of interlayer oxide over said pattern of LOCOS regions and said inside surfaces of said trenches created in said substrate;

depositing a layer of polysilicon over said layer of interlayer oxide;

patterning said layer of polysilicon, said patterned layer of polysilicon comprising at least one contact point over said substrate; and

measuring a voltage required to induce a FN tunneling based current between said at least one contact point of said patterned layer of polysilicon and said substrate after said substrate has been exposed to a semiconductor processing tool under known conditions of processing by said semiconductor processing tool.

14. (Previously Presented) The method of claim 13, said creating a pattern of Local Oxidation of Silicon (LOCOS) regions in said substrate comprising the steps of:

depositing a layer of silicon nitride over said substrate;

patterning said layer of silicon nitride, creating a mask of silicon nitride over said substrate, elements of said mask being interspersed with exposed regions of said substrate;

creating layers of Local Oxidation of Silicon (LOCOS) in said exposed regions of said substrate; and

removing said mask of silicon nitride from said substrate.

15. (Previously Presented) The method of claim 13, wherein said layer of interlayer oxide is HTO, dry oxide or wet oxide.

16. (Original) The method of claim 13, said layer of interlayer oxide being created to a thickness between about 80 and 300 Angstrom.

17. (Previously Presented) The method of claim 13, said layer of polysilicon being deposited to a thickness within the range of between 1,500 and 6,000 Angstrom.

18. (Previously Presented) A method of creating an electron charge effect monitoring device, comprising:

providing a substrate, a layer of n-type conductivity having been created in said substrate;

creating a pattern of Local Oxidation of Silicon (LOCOS) regions in said substrate, said pattern of LOCOS being interspersed with exposed regions of said substrate;

etching said exposed regions of said substrate using said pattern of LOCOS regions as a hard mask, creating a pattern of elevated LOCOS regions, creating trenches having inside surfaces in said substrate;

creating a layer of interlayer oxide over said pattern of LOCOS regions and said inside surfaces of said trenches created in said substrate;

depositing a layer of polysilicon over said layer of interlayer oxide;

patterning said layer of polysilicon, said patterned layer of polysilicon comprising at least one contact point over said substrate; and

measuring a voltage required to induce a FN tunneling based current between said at least one contact point of said patterned layer of polysilicon and said substrate after said substrate has been exposed to a semiconductor processing tool under known conditions of processing by said semiconductor processing tool,

said patterned layer of polysilicon comprising a square, said pattern of Local Oxidation of Silicon (LOCOS) regions comprising arrays of LOCOS regions perpendicularly and outwardly extending from each side of said square of said patterned layer of polysilicon.

Claims 19-22. (Cancelled)

23. (Amended) ~~The method of claim 13,~~ A method of creating an electron charge effect monitoring device, comprising:

providing a substrate, a layer of n-type conductivity having been created in said substrate;

creating a pattern of Local Oxidation of Silicon (LOCOS) regions in said substrate, said pattern of LOCOS being interspersed with exposed regions of said substrate;

etching said exposed regions of said substrate using said pattern of LOCOS regions as a hard mask, creating a pattern of elevated LOCOS regions, creating trenches having inside surfaces in said substrate;

creating a layer of interlayer oxide over said pattern of LOCOS regions and said inside surfaces of said trenches created in said substrate;

depositing a layer of polysilicon over said layer of interlayer oxide;

patterning said layer of polysilicon, said patterned layer of polysilicon comprising at least one contact point over said substrate; and

measuring a voltage required to induce a FN tunneling based current between said at least one contact point of said patterned layer of polysilicon and said substrate after said substrate has been exposed to a semiconductor processing tool under known conditions of processing by said semiconductor processing tool,

whereby said electron charge effect monitoring device can be recycled by applying an additional step of thermally annealing said substrate, thereby thermally annealing said electron charge monitoring device having been created in and on said substrate.

Claims 24-32. (Cancelled)

33. (Amended) A method for monitoring electron charge effect occurring during semiconductor processing, comprising:

forming a monitor wafer having floating gate structures;

exposing the monitor wafer to a plasma process; and

measuring plasma damage by measuring ~~interlayer oxide electron trap out rate~~ a voltage required to induce a FN tunneling based current between at least one contact point of said floating gate structures and said monitor wafer.

34. (Cancelled)

35. (Previously Presented) The method of claim 34, said FN tunneling based current between at least one contact point of said floating gate structures and said monitor wafer being about 0.1 μA.

36. (Previously Presented) A method for monitoring electron charge effect occurring during semiconductor processing, comprising:

providing a monitor substrate having a layer of n-type conductivity therein and including oxidized regions formed thereover and interspersed with trench regions that each include an opening extending into said monitor substrate, an interlayer oxide layer disposed over said oxidized regions and said trench regions, a patterned polysilicon layer disposed over said interlayer oxide layer and comprising at least one contact point over said monitor substrate that forms an electron charge monitoring device having a surface;

providing a semiconductor processing tool designated as being evaluated for electron charge effect of a process being performed by said semiconductor processing tool;

positioning said monitor substrate inside said semiconductor processing tool in a location and a position generally occupied by a substrate being processed by said semiconductor processing tool;

establishing processing conditions for said process;

exposing said electron charge monitoring device to said established processing conditions for a period of time;

removing said electron charge monitoring device from said semiconductor processing tool; and

measuring a voltage required to induce a FN tunneling based current between the at least one contact point of said patterned layer of polysilicon and said monitor substrate.